FRIDLENDER, I. G.

Fridlender, I. G. (Zaporszh'ye). Calculation of Tolerances for Dimensions
Determining Physical and Mechanical Characteristics of Parts and Mechanisms   p. 106

Interchangeability, Accuracy and Measuring Methods in Machine Building, Moscow,
Mashgiz, 1958, 251 pp. (Sbornik Nauchno-tekh. obshch. mashinostroitel'noy
promyshlennosti, Leningradskoye oblast pravleniya, kn. 47).

   This collection of articles deals with the topics discussed at the 3rd
Leningrad Sci. and Engineering Conference on Interchangeability, accuracy and
Inspection Methods in Machine-building and Instrument-making, held 18-22 Mar 1957.

SOV/123-59-15-58898

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 15, p 11 (USSR)

AUTHOR: Fridlender, I.G.

TITLE: The Calculation of Tolerances for Dimensions Which Determine the Physico-
               Mechanical Qualities of Machine Parts and Mechanisms

PERIODICAL: V sb.: Vzaimozamenyaemost', tochnost' i metody izmereniya v mashinostr,
               M.-L., Mashgiz, 1958, pp 106 - 109

ABSTRACT: The nature of the method of calculating tolerances of machine part
               dimensions, which are not coupled but have an essential effect on the
               operation of mechanisms, is explained. An example of the practical
               application of the formulae for the calculation of errors of the plane
               diaphragm of an indicator is stated, as well as the scheme of this
               device and also the curves of the growth of the errors of the plane
               diaphragm as a function of its deflection. 2 references.
                                                        P.Ye.A.

Card 1/1

PHASE I BOOK EXPLOITATION   SOV/4040

Fridlender, Izrail' Grigor'yevich

Voprosy tochnosti proizvodstva mashin (Problems of Accuracy in Machinery
    Manufacture) Khar'kov, Izd-vo Khar'kovskogo univ., 1959. 291 p. 3,000 copies
    printed.

Resp. Ed.: M.M. Lamm, Candidate of Technical Sciences, Docent; Ed.: A.S. Shevchenko;
    Tech. Ed.: A.S. Trofimenko.

PURPOSE: This book is intended for technical personnel at machine plants, scien-
    tific workers, and students at schools of higher education specializing in ma-
    chine construction.

COVERAGE: The book deals with the theoretical basis and practical application of
    measures for maintaining accuracy in machinery manufacture. Reccommendations are
    made for insuring accuracy in the machining of parts on metal-cutting machine
    tools and the assembly of machine elements into subassemblies and finished prod-
    ucts. Among the topics discussed are the calculation of tolerances in machine

Card 1/5

Problems of Accuracy in Machinery Manufacture   SOV/4040

design, qualitative and quantitative analysis of errors in production preparation, and methods for maintaining a rigid level of accuracy in the production process. Professor A.P.Sokolovskiy(Deceased) is given credit for being the first to systematically and successfully present material on accuracy calculation in book form. The author thanks Professor I.D. Faynerman and Docents V.P. Il'yashenko (Deceased), V.V. Martynenko, V.V. Ivanov, and M.M. Lamm for their assistance in preparing the manuscript. There are 71 references: 70 Soviet and 1 English.

TABLE OF CONTENTS:

Card 2/5

Friedlender, ...

PHASE I BOOK EXPLOITATION   SOV/4137

Akademiya nauk SSSR. Institut mashinovedeniya. Seminar po tochnosti v
    mashinostroyenii i priborostroyenii

Trudy, vyp. 14 (Transactions of the Institute of Machine Science, Academy of
    Sciences USSR. Seminar on Accuracy in Machinery and Instrument Manufacture,
    no. 14) Moscow, 1960. 84 p. Errata slip inserted. 2,200 copies printed.

Editorial Board: N.G. Bruyevich (Resp. Ed.), Academician; G.G. Baranov, Doctor
    of Technical Sciences; M.L. Bykhovskiy, Doctor of Technical Sciences; A.P.
    Vladziyevskiy, Doctor of Technical Sciences; B.G. Dostupov, Doctor of Technical
    Sciences; M.I. Kochenov, Candidate of Technical Sciences; Yu. V. Lyubatov,
    Candidate of Technical Sciences; D.N. Reshetov, Doctor of Technical Sciences;
    V.I. Sergeyev, Candidate of Technical Sciences; and A.S. Shatalov, Doctor of
    Technical Sciences; Ed. of Publishing House: P.F. Zolotov; Tech. Ed.: S.G.
    Markovich.

PURPOSE: This collection of articles is intended for scientific workers and
    design engineers.

Card 1/4

Transactions of the Institute (Cont.)   SOV/4137

COVERAGE: The book contains articles dealing with the accuracy of the rotating mechanism in a ten-position selector for the dial-telephone system, with bridge-type computing and measuring devices, with calculation of allowances for turbine blades, and with investigations of linear electric circuits and accuracy in automatic machining of bearing rings. No personalities are mentioned. References accompany each article.

TABLE OF CONTENTS:

Lebedev, P.A. Investigation of the Accuracy of the Mechanism for Revolving
the Ratchet Cylinder of a Ten-Position Selector of the Dial-Telephone System   3
    The author discusses the construction and operating principles of the
    ten-position selector used in the dial-telephone system and presents an
    approximate analytical method for determining kinematic parameters of
    the mechanism and errors in the ratchet-pawl engagement.

Sergeyev, V.I. Effect of Inertia Loads, Dry Friction, and Backlash on
Performance of Bridge-Type Computing and Measuring Instruments   20
    The author presents an analytical method for determining control time
    and overshoot for a bridge-type multiplier with automatic actuation.
    The effect of inertia loading, dry friction, and backlash in gear-type
    speed reducer are taken into account.

Card 2/4

Transactions of the Institute (Cont.)   SOV/4137

Matevosyan, P.A. Investigating the Accuracy of Complex Devices
With Closed Circuits   35
    The author investigates some problems of the accuracy of complex
    mechanical and electronic devices with closed circuits [kinematic
    chains of gear-cutting machines, mechanical and electronic computers
    of implicit functions, etc.]. The interrelation between input and
    output parameters of these circuits is described by algebraic equations.
    The accuracy and errors of the whole system are calculated from known
    accuracies and errors of component elements.

Fridlender, I.G. Methods of Check Calculations of Tolerances for Turbine-
Rotor Blades   44
    A method is presented for calculating dimensional tolerances and for
    determining physical-mechanical properties for turbine-rotor blades in
    order to insure the natural dynamic frequency of the blades in a speed
    range far enough from the operating speed to avoid resonance. Analytical
    and experimental methods for determining the values of partial derivatives
    of basic equations and vibration intensification coefficients (showing the
    effect of dimensional and physical-mechanical changes of blades on their
    natural frequency) are discussed.
Card 3/4

Transactions of the Institute (Cont.)   SOV/4137

Lyubatov, Yu. V. On a Method of Determining Errors in Linear Electric
Circuits With Resistance Elements   69
    The term errors here means the difference between nominal and actual
values of parameters. The author presents an analytical method for
determining coefficients showing the influence of errors and in-
accuracies in assembling (parasitic parameters) on the functioning of
linear resistance circuits.

Likhacheva, Ye. A., and V.I. Sergeyev. Investigation of Some Accuracy
Problems in   Machining Bearing Rings on Transfer Machines   76
    The authors examine (by means of mathematical statistics) the inter-
relation between errors of the following and preceeding operations in
centerless grinding of tracks of external rings of rolling-contact
bearings. It is claimed to be the first attempt to describe certain
statistical regularity patterns for the operation of a group of auto-
matic grinders used for the machining of rings.

AVAILABLE: Library of Congress

Card 4/4

VK/pw/mas
10-25-60

FRIDLENDER, I.G.

Criteria and methods for evaluating the precision of the machining
of parts. Trudy Inst.mash.Sem.po toch.v mash.i prib. no.15:68-75
'61.   (MIRA 14:5)
                    (Metal cutting)

ABRAMOVA, Zh.I.; BRUSILOVSKAYA, A.I.; GADASKINA, I.D.; GOLUBEV, A.A.;
    GRIGOR'YEV, Z.E.; DANISHEVSKIY, S.L.; KOVNATSKIY, M.A.; KOYRANSKIY, B.B.;
    LAZAREV, N.V.; LEVINA, E.N.; LYUBLINA, Ye.I.; LYKHINA, Ye.T.; OSIPOV,
    B.S.; RYLOVA, M.L.; RUSIN, V.Ya.; SLONIM, A.D.; FRIDLYAND, I.G.

Il'ia Stepanovich Aleksandrov. Farm.i toks. 24 no.1:127 Ja-F '61.
                                                (MIRA 14:5)
        (ALEKSANDROV, IL'IA STEPANOVICH, 1902-1960)

FRIDLENDER, I.G.

    Static method for evaluating the dispersion of physical
    characteristics of machines and their parts. Trudy Inst. mash.
    Sem. po toch. v mash. i prib. no.17:105-107 '63.   (MIRA 16:9)

            (Machinery)

ACCESSION NR: AP4010068   S/0129/64/000/001/0014/0019

AUTHOR: Petergerya, D.M.; Fridlender, I.G.

TITLE: Effect of annealing and combined treatment on the mechanical properties of the alloy KhN77TYuR

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov no. 1, 1964, 14-19

TOPIC TAGS: annealing, electroplating, alloy mechanical property, turbine blade, KhN77TYuR alloy, alloy hardness

ABSTRACT: In order to explain the cracking of turbine blades during their use, the authors studied the effects of annealing in air, NH_3, N, and Ar on the alloy KhN77TYuR and the effects of heat treatment and electroplating on the mechanical properties of parts manufactured from this alloy. The finished parts, with or without electropolishing, were annealed in air at 750 C for 8 hours, or in dissociated NH_3, N, or argon at 850 C for 2 hours. Parts treated in a neutral atmosphere were annealed and aged at 700 C for 7 hours. The mechanical properties of the parts were evaluated by determining their microhardness, wear resistance, delayed failure, ductility, and impact toughness. It was found that the microhardness was decreased to some extent in all tested media and conditions. The microhardness was more markedly decreased on annealing at 850 C for 2 hours than by

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ACCESSION NR: AP4010068

annealing at 750 C for 8 hours. The mechanical properties of the tested alloys were increased by annealing and electropolishing, the best results being obtained by annealing in an argon atmosphere. A positive effect of electropolishing on the delayed failure and wear resistance was also demonstrated. It is concluded that annealing of blades made of alloy KhN77TYuR may be carried out in air at 750 C for 8 hours. Optimal mechanical properties are obtained, however, by annealing in an argon atmosphere after electropolishing. Orig. art. has: 2 figures and 5 tables.

ASSOCIATION: Zaporozhskiy mashinostroitel'ny*y institut (Zaporozhe Machine Building Institute)

SUBMITTED: 00   DATE ACQ: 07Feb64   ENCL: 00

SUB CODE: ML   NO REF SOV: 004   OTHER: 001

Card   2/2

FRIDLENDER, I.G.; DRACHEV, I.F.

Fundamentals for calculating allowances for securing the functional interchangeability of machines, instruments and their parts. Vzaim. i tekh. izm. v mashinostr.; nauch.-tekh. sbor. no.4:68-93 '64 (MIRA 18:1)

FRIDLENDER, I.G., kand. tekhn. nauk, dotsent

Fundamentals of the theory of functional interchangeability
of machines and instruments. Izv. vys. ucheb. zav.; mashinostr.
no.3:101-110 '65.   (MIRA 18:6)

1. Zaporozhskiy mashinostroitel'nyy institut.

FRIDLENDER, I.G., kand. tekhn. nauk, dotsent; FRIDIENDER, E.I., inzh.

Solution of a class of nonlinear problems in the theory
of functional interchangeability and precision of
machines and their parts. Izv. vys. ucheb. zav.; mashinostr.
no.9:177-183 '65.   (MIRA 18:11)

L 8986-66   EWT(d)/EWT(1)/ETC/EPF(n)-2/EWG(m)   IJP(c)   WW

ACC NR: AP5027570   UR/0170/65/009/005/0577/0582

AUTHOR: Fridlender, N. A.

ORG: Technological Institute for Light Industry, Moscow (Tekhnologicheskiy institut legkoy promyshlennosti)

TITLE: Method for the complex simulation of unsteady state mass and heat transfer processes

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 9, no. 5, 1965, 577-582

TOPIC TAGS: heat transfer, mass transfer, mathematic matrix, electronic simulation, porosity

ABSTRACT: The article proposes a complex method of solution involving two matrices: the first matrix includes the capacities and the resistances and simulates the heat transfer and the second matrix includes the mass transfer. The cells of the matrices are interconnected, so that a change in the potential of one matrix has an effect on the change in potential of the other. • The author considers the equations of heat and mass transfer in capillary porous bodies. It is assumed that a capillary porous body is partly filled with liquid and partly with vapor. Diffusion mass transfer is the result of the

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ACC NR: AP5027570 O

inhomogeneous characteristics of the concentrations and of the
temperatures. The differential equations, satisfied by the tempera-
ture t (x,y,z,τ) (^{O}C), and the mass transfer potential ϑ (x,y,z,τ)
(^{O}M), have the form:

$$\frac{\partial t}{\partial \tau} = \nabla^2 t + \frac{\varepsilon r C_m}{C_q} \frac{\partial \vartheta}{\partial \tau}, \qquad (1)$$

$$\frac{\partial \vartheta}{\partial \tau} = a_m \nabla^2 \vartheta + a_m \delta_\theta \nabla^2 t. \qquad (2)$$

The article gives a schematic diagram of the electronic simulation of
the problem for the one-dimensional and two-dimensional cases. Orig.
art. has: 18 formulas and 1 figure.

SUB CODE: TD, GO/   SUBM DATE: 18May65/   ORIG REF: 002/

OTH REF: 001

Card 2/2

ACC NR: AT7000374   SOURCE CODE: UR/0000/66/000/000/0020/0026

AUTHOR: Fridlender, N. A.

ORG: Moscow Technological Institute for Light Industry (Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti)

TITLE: Use of variational methods in heat transfer problems

SOURCE: Teplo- i massoperenos, t. 6: Metody rasheta i modelirovaniya protsessov teplo- i massoobmena (Heat and mass transfer, v. 6: Methods of calculating and modeling heat and mass transfer processes). Minsk, Nauka i tekhnika, 1966, 20-26.

TOPIC TAGS: temperature distribution, boundary layer heat transfer, variational method

ABSTRACT: The article presents a method for determining the temperature fields for three-dimensional or plane systems, with a given distribution of the heat sources $q = q(x,y,z)$ in a given region. In the case of a steady-state heat flux, the temperature η in the region of the heat sources obeys the Poisson equation·

$$\frac{\partial^2 \eta}{\partial x^2} + \frac{\partial^2 \eta}{\partial y^2} + \frac{\partial^2 \eta}{\partial z^2} + \frac{q(x,\ y,\ z)}{\lambda} = 0, \qquad (1)$$

and, in a region where there are no heat sources, it obeys the Laplace equation

$$\frac{\partial^2 \eta}{\partial x^2} + \frac{\partial^2 \eta}{\partial y^2} + \frac{\partial^2 \eta}{\partial z^2} = 0.$$

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ACC NR: AT7000374

In addition, the temperature field must satisfy the usual boundary condition of the form

$$a\eta + \lambda \frac{\partial \eta}{\partial n} = 0. \qquad (2)$$

To determine the temperature fields, the author uses variational methods of the Galerkin-Ritz type, which leads to equations of the form

$$\iiint_{D} \left[\frac{\partial^2 \eta}{\partial x^2} + \frac{\partial^2 \eta}{\partial y^2} + \frac{\partial^2 \eta}{\partial z^2} + \frac{q(x, y, z)}{\lambda} \right] \times$$
$$\times f_i(x, y, z)\,dx\,dy\,dz = 0, \quad i = 1, 2, \ldots, n, \qquad (3)$$

where f_i are the coordinates of the functions of the problem, which satisfy the boundary conditions (2). Temperature distributions calculated on the basis of the above approach are compared with existing experimental data, and the results of the comparison are shown in a series of curves. Orig. art. has: 4 formulas and 5 figures.

SUB CODE: 20/   SUBM DATE: 08Jun66

Card 2/2

L 16056-66   EWT(d)   IJP(d)

ACC NR: AP6004080   SOURCE CODE: UR/0040/65/029/005/0973/0976

AUTHOR: Fridlender, O. G.

ORG: none   /L, VY, 5 5

TITLE: Locally Maxwellian solutions of the Boltzmann equation

SOURCE: Prikladnaya matematika i mekhanika, v. 29, no. 5, 1965, 973-976

TOPIC TAGS: differential equation, Boltzmann equation

ABSTRACT: The author treats the kinetic Boltzmann equation

$$\frac{\partial f}{\partial t} + \xi_i \frac{\partial f}{\partial x_i} + g_i \frac{\partial f}{\partial \xi_i} = J \qquad (1)$$

showing what conditions must be satisfied by the external fields so that
solutions of the form

$$f = \rho \left(\frac{m}{2\pi kT}\right)^{3/2} \exp\left(-\frac{mc^2}{2kT}\right) \qquad (c = \xi - u) \qquad (2)$$

exist for (1), and what solutions are possible here. In the case of an exterior
time independent force field the flows existing can be determined, as shown by the
two cases: a) constant rotation of the gas, b) absence of a constant component

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ACC NR: AP6004080

/

of angular velocity, in which oscillating solutions are possible. The case of radial widening is specifically considered. The author thanks M. N. Kogan for stating and discussing the problem. Orig. art. has: 19 formulas.

SUB CODE: 12/ SUBM DATE: 18Feb65/   OTH REF: 004

Card 2/2

FRIDENSHTEYN, A.Ya.; LALYKINA, K.S.

Characteristics of the inductive properties of rat transitional
epithelium after transplantation. Biul. eksp. biol. i med. 55
no.4:104-107 Ap '63.   (MIRA 17:10)

1. Iz otdela radiatsionnoy mikrobiologii i immunologii (zav. -
deystvitel'nyy chlen AMN SSSR (V.L. Troitskiy [deceased]) Insti-
tuta epidemiologii i mikrobiologii imeni N.F. Gamalei (dir. -
prof. P.A. Vershilova) AMN SSSR, Moskva. Predstavlena deystvitel'-
nym chlenom AMN SSSR V.L. Troitskim [deceased].

GALATSKIY, B.D., inzh.; FRIDLYANDER, I.N., doktor tekhn.nauk, prof.

Determining the time length of heating for annealing of
extruded duralumin products. Metalloved. i term. obr.
met. no.11:13-17 N '62.   (MIRA 15:11)
            (Duralumin—Heat treatment)

FRIDLENDER, M.S.

Osmotic resistance of erythrocytes and toxogenic granulation of leukocytes in asbestosis. Klin. med., Moskva 31 no.4:86 Apr 1953.   (CLML 24:4)

1. Candidate Medical Sciences. 2. Of the Hospital Therapeutic Clinic (Director -- Prof. M. S. Vasilevskiy), Yaroslavl' Medical Institute.

FRIDLENDER, M.S., kandidat meditsinskikh nauk; VASILEVSKIY, M.E., professor, director.

Osmotic resistance of erythrocytes and toxogenic granulation of leukocytes in asbestosis. Klin.med. 34 no.4:86 Ap '53.   (MLRA 6:7)

1. Gospital'naya terapevticheskaya klinika Yaroslavskogo meditsinskogo instituta.   (Lungs--Diseases) (Blood--Corpuscles and platelets)

FRIDLYAND, M. V., Cand Phys-Math Sci -- (diss) "Problem of the deter-
mination of free physical libration of the Moon in longitude." Lenin-
grad, 1960. 7 pp; 1 page of tables; (Academy of Sciences USSR, Main
Astronomical Observatory); 250 copies; price not given; (KL, 19-60, 150)

FRIDLENDER, N. A.

/X 5 1 1

2259. The thermal expansion of some refractories used in the glass industry.--
N. V. SOLOMIN, N. M. GALDINA and N. A. FRIDLENDER (Stek. Keram., 8, No. 3,8, 1951).
Measurements were carried out of the thermal expansion of some refractories with
a dilatometer of the Solomin type, which is described in detail. The thermal
expansion curves for fired kaolin, firebrick and refractory porcelain are smooth
and almost coincide with each other. Silica of s.g. 2.48 behaves considerably
worse during heating than that with s.g. 2.35. The thermal expansion of electrofused
zircon-mullite is characterized by a smooth curve. The glassy phase of zircon-mullite
gives a sharp increase in the expansion coeff. above 600° C.; this might account for
the dangerous stresses in mullite blocks at 700°-800° C. during the warming up of
glass tanks. With fired corundum refractories the expansion curves showed no sharp
changes in the expansion coeff. The expansion coeffs. of corundum refractories
are almost twice as high as those of grog refractories. (8 figs., 9 tables.)

Fridlender, N.A.

USSR

3.

Dilatometric examination of monothermite and kaolinite sedimentary rocks. N. V. Solomin and N. A. Fridlender. Voprosy Petrog. i Mineral., Akad. Nauk S.S.S.R. 2, 459-49 (1953).—The widespread occurrence of quartz as an accessory mineral in clay sediments is easily detected by the dilatometric effect of its $\alpha \rightleftharpoons \beta$ inversion. Pure kaolinite does not show a corresponding dilatometric effect. The low-temp. effects (at 100° to 200°) are irreversible and only belong to adsorption H_2O in the clay minerals. In highly siliceous refractory monothermite clays (e.g., from Druzhkovsk) and certain kaolins (Latninsk) the quartz effect is nearly completely suppressed after calcination at 900°, but it reappears after a calcination at 1300°. Siliceous monothermite clays differ also by the high changes in the av. expansion coeffs.; after calcination at 1100° these clays show higher expansion coeffs. which, however, are decreased again at highest temps., evidently by the formation of a SiO_2-rich glass. The kaolinite clay of Latninsk shows after heating to 1300° a distinct dilatometric effect between 160° and 180° the reason for which is not known (perhaps a tridymite effect?).
W. Eitel

FRIDLENDER, N.A., aspirant

Finding the optimum conditions for the course of chemical reactions
in gas flows. Nauch. trudy MTILP no.24:275-279 '62.
(MIRA 16:7)

1. Kafedra vysshey matematiki Moskovskogo tekhnologicheskogo
instituta legkoy promyshlennosti.
(Chemical reactions)   (Gas flow)

FRIDLENDER, N. A.

"Application of variational methods to heat-transfer problems."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Moscow Technological Inst of Light Industry.

FRIDLENDER, N.A., aspirant

Using the method of electric modeling in the study of unsteady
temperature fields in vulcanization presses. Nauch. trudy MTILP
no.30:246-257 '64.   (MIRA 18:6)

1. Kafedra vysshey matematiki Moskovskogo tekhnologicheskogo
instituta legkoy promyshlennosti.

FRIDLENDER, N.A., aspirant; MAYZEL', M.M., doktor tekhn. nauk, prof.

Distribution of heat sources in vulcanization presses and check
of the solving of such kind of problems on electric models.
Nauch. trudy MTILP no.30:258-268 '64.   (MIRA 18:6)

1. Kafedra vysshey matematiki i kafedra avtomatiki Moskovskogo
tekhnologicheskogo instituta legkoy promyshlennosti.

FRIDLENDER, O.G. (Moskva)

Resistance of a flat plate perpendicular to a hypersonic rarefied gas
flow. PMTF no.3:150-152 My-Je '63.   (MIRA 16:)
                (Aerodynamics, Hypersonic)

FRIDLENDER, V. R.

Fridlender, V. R. On the least nth-power non-residue. Doklady Akad. Nauk SSSR (N.S.) 66, 351-352 (1949). (Russian)

Let n be a positive integer greater than 1 and for every prime number $p \equiv 1 \pmod{n}$ let $T_n(p)$ denote the smallest positive integer which is not congruent to an nth power modulo p. Using Linnik's theorem that the smallest prime in the arithmetic progression $kx+l$, $(k, l) = 1$, does not exceed k^c for some positive constant c [Rec. Math. [Mat. Sbornik] N.S. 15(57), 139-178, 347-368 (1944); these Rev. 6, 260], the author proves that $T_2(p) = \Omega(\log p)$, i.e., $\lim \sup_{p \to \infty} \{T_2(p)/\log p\} > 0$. He remarks that this result cannot be extended to $T_n(p)$ for $n > 2$, since Linnik's theorem has not been carried over to cyclotomic fields. However, he points out that a theorem of Linnik on $T_2(p)$ [C. R. (Doklady) Acad. Sci. URSS (N.S.) 36, 119-120 (1942); these Rev. 4, 189] can be generalized to $T_n(p)$ for any $n > 1$.   P. T. Bateman (Princeton, N. J.).

Source: Mathematical Reviews,   Vol 10,   No.10

FRIDLENDER, V. R.

6-23-54
LL

Salehov, G. S., and Fridlender, V. R. On a problem inverse to the Cauchy-Kovalevskaya problem. Uspehi Matem. Nauk (N.S.) 7, no. 5(51), 169–192 (1952). (Russian)

Consider, for definiteness, the partial differential equation

(1) $$\frac{\partial^{p}u}{\partial t^{p}} = F\left(t, x_1, \cdots, x_n, u, \cdots, \frac{\partial^{q}u}{\partial t^{a_0}\partial x_1^{a_1}\cdots\partial x_n^{a_n}}, \cdots\right)$$

with initial Cauchy data

(2) $$\frac{\partial^{k}u}{\partial t^{k}}\bigg|_{t=0} = \varphi_k(x_1, \cdots, x_n), \quad k=0, 1, \cdots, p-1.$$

The equation (1) is called normal (following S. Kovalevsky) provided that $a_0 < p$, $q \leq p$, and otherwise is called anormal. The subject matter of the present survey article may be properly said to begin with the Cauchy-Kovalevsky theorem, which asserts that a normal equation (1) has a solution, analytic in a neighborhood of $t=0$, for arbitrary analytic Cauchy data (2). In general, this is not true for anormal equations; cf. S. Kovalevsky's example of the heat equation $\partial u/\partial t = \partial^2 u/\partial x^2$, with $u(0, x)$ as given initial Cauchy data. [See, e.g., S. Kovalevskaya, Scientific works, Izdat. Akad. Nauk SSSR, Moscow-Leningrad, 1948; these Rev. 14, 121.] The inverse Cauchy problem consists, essentially, in the determination of necessary and sufficient conditions on the Cauchy data (2) in order that the corresponding solution of (1) be analytic in the "principal" variable t. Section 1 contains a formulation of the problem and section 2 deals with infinitely differentiable functions, in particular,

Salekov, G. S.   (2)

those of Gevrey's [Ann. Sci. Ecole Norm. Sup. (3) 35, 129–190 (1918)] classes α. Section 3 discusses "two term" equations, e.g., $\partial^2 u/\partial t^2 = \partial^4 u/\partial x^4$, and the concept of "weight" of an equation. Section 4 deals with the method of majorants and also with successive approximations [cf. Fridlender, Doklady Akad. Nauk SSSR (N.S.) 76, 363–365 (1951); these Rev. 14, 284]. Section 5 considers certain existence theorems for integro-differential equations [cf. Kokareva, ibid. 79, 13–16 (1951); these Rev. 14, 284]. Section 6 is concerned with the inverse Cauchy-Kovalevsky problem for systems of linear equations. The remaining four sections are devoted to related questions, and to the formulation of unsolved problems.   J. B. Dias (College Park, Md.).

FIKHTE, V. A.

"The Problem, Inverse to the Cauchy-Kovalevskiy Problem, for Several Classes of
Differential-Operator Equations." Cand Phys-Math Sci, Kazan' State U, Kazan', 1953.
Dissertation (Referativnyy Zhurnal--Matematika Moscow, Feb 54)

SO: SUM 133, 19 Aug 1954

FRIDLENDER, V.P.

The Gauchy-Kovalevskaia problem for certain equations with partial
derivatives. Usp.mat.nauk 12 no.3:385-388 My-Je '57. (MIRA 10:10)
                    (Differential equations, Partial)

16(1)

AUTHOR: Fridlender, V.R. (~~~~~)   SOV/39-47-1-2/8

TITLE: On Analytic Solutions of the Cauchy Problem for Some Nonlinear Partial Differential Equations(Ob analiticheskikh resheniyakh zadachi Koshi dlya nekotorykh nelineynykh uravneniy s chastnymi proizvodnymi)

PERIODICAL: Matematicheskiy sbornik, 1959, Vol 47, Nr 1, pp 17-44 (USSR)

ABSTRACT: The paper continues the author's investigations $\big/$Ref 2,3,9$\big/$ and those of Salekhov $\big/$Ref 10,11,12$\big/$ on the Cauchy problem for partial differential equations. The author considers equations of the type

$$(1) \qquad \frac{\partial^{P} u}{\partial t^{P}} = \sum_{k=1}^{N} f_{k}(t,x) \prod_{i=1}^{s_{k}} \frac{\partial^{r_{ik}+q_{ik}} u}{\partial t^{r_{ik}} \partial x^{q_{ik}}} + f_{o}(t,x).$$

He investigates the conditions which have to be satisfied by the Cauchy initial functions in order that (1) has an analytic solution. With very sparing means by successive generalization of the results the author proves eleven theorems

Card 1/2

On Analytic Solutions of the Cauchy Problem for   SOV/39-47-1-2/8
Some Nonlinear Partial Differential Equations

and seven lemmas. The theorems are assertions of existence
and have no constructive character. Finally the author gives
numerous interesting conjectures.
There are 13 references, 9 of which are Soviet, 1 German,
2 French, and 1 Italian.

SUBMITTED: May 20, 1957

Card 2/2

28921

S/056/61/041/004/004/019
B108/B102

AUTHORS: Bozoki, G., Fen'veoh, E., Shandor, T., Balon, O., Batagui, M.,
             Fridlender, Ye., Botev, B., Kavlakov, Sh., Litrani, L.

TITLE: Absorption of nuclear-active cosmic-ray particles in air

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41,
             no. 4(10), 1961, 1043-1045

TEXT: The absorption of the nuclear-active component of cosmic radiation
in air was measured at various altitudes above sea level. Showers were
recorded with a coincidence arrangement of counters installed in a lead
block (Fig. 1). The muon background was measured in Budapest 8 m under-
ground (17 m water equivalent) to secure the recording of sixfold-
coincidences due to muons only. The sixfold coincidences were recorded by
the pair-connected counters 5 and 7, and 6 and 8. This underground
measurement, together with the other measurements at various altitudes,
made it possible to obtain corrections for background to the coincidence
measurements with nuclear-active cosmic-ray particles. Results:

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Absorption of nuclear-active cosmic-...   B108/B102

Place of measurement	Depth, g/cm^2	Coincidences per hour
Bucharest (80 m above sea level)	1009	1.00 ± 0.04
Budapest (410 m)	969	1.55 ± 0.04
Bushteni (950 m)	907	2.37 ± 0.04
Pik Stalina (2925 m)	703	13.67 ± 0.11

The absorption mean free path λ_a for nuclear-active particles in air was found to be $(119 \pm 1)g/cm^2$. From the frequency of coincidences, the authors estimated the particle mean energy to amount to 30 Bev. The authors thank Professor L. Yanoshi, Professor G. Nadzhakov, and Professor I. Auslender for their interest and advice, N. Akhababyan, I. Kh. Ionn,

Card 2/4

28921

Absorption of nuclear-active cosmic-...   S/056/61/041/004/004/019
B108/B102

Y. Kokh, G. Taler, K. Tsige'man, and Y. Shnirer for the installation of the
experimental device, and E. Rupp for assistance in calculations. Mention
is made of Sh. A. Azimov, V. F. Vishnevskiy, N. I. Khil'ko (DAN SSSR, 78,
231, 1951), and of K. P. Ryzhkova and L. I. Sarychova (ZhETF, 28, 618,
1955). There are 2 figures, 1 table, and 8 references: 3 Soviet-bloc
and 5 non-Soviet. The four references to English-language publications read
as follows: I. Tinlot, Phys. Rev., 74, 1197, 1948; L. Hodson, Proc. Phys.
Soc., A65, 702, 1952; E. P. George, A. Jason, Proc. Phys. Soc., A63, 1081,
1950; H. S. Bridge, R. H. Rediker, Phys. Rev., 88, 206, 1952.

ASSOCIATION: Tsentral'nyy nauchno-issledovatel'skiy institut fiziki
              Vengerskogo Akademii nauk, Budapesht (Central Scientific
              Research Institute of Physics of the Hungarian Academy of
              Sciences, Budapest) (G. Bozoki, E. Fen'vesh, T. Shandor),
              Institut yadernoy fiziki v Bukhareste, Rumyniya (Institute
              of Nuclear Physics in Bucharest, Romania) (O. Balea, M.
              Batagui, Ye. Fridlender), Fizicheskiy institut s Atomnoy
              nauchno-eksperimental'noy bazoy v Sofii, Bolgariya (Institute
              of Physics With Atomic Scientific Test Base in Sofiya,
Card 3/4   Bulgaria) (B. Betev, Sh. Kavlakov, L. Mitrani).

STAROZHITSKIY, A.Ya., inzh.; FRIDLIDER, M.M., inzh.

Selecting the inside diameter for the ring of a polisher. Stek.
i ker. 20 no.5:18-21 My '63.   (MIRA 16:7)

1. Gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy
institut stekol'nogo mashinostroyeniya.
            (Glas manufacture—Equipment and supplies)

FRIDLIN, Vladimir Mikhaylovich; ZHELUDEV, Ivan Stepanovich; NADZHAKOV,
      G.S., akademik, otv.red.; RYDNIK, V.I., red.izd-va; LEBEDEVA,
      L.A., tekhn.red.

[Photoelectrets and the electrophotographic process] Fotoelektrety
i elektrofotograficheskii protsess. Moskva, Izd-vo Akad.nauk SSSR,
1960. 207 p.   (MIRA 13:9)

1. Bolgarskaya Akademiya nauk (for Nadzhakov).
        (Copying processes)   (Electrets)

FRIDLYAN, A.M., inzh.

Expediency of constructing two single-track workings instead of one double-track working under difficult geological and mining conditions. Shakht. stroi. 5 no.10:17-19 O '60.   (MIRA 13:11)

1. Trest Dolinskshakhtostroy.

(Mining engineering)

FRIDLAND, A

Dyeing of chrome leather. A. KOSTENKO AND A FRIDLAND *Vestnik Kozhevennoi Prom Torgov* 1929, 497 9. *Chem Zentr* 1930, II, 3084 5 Satisfactory results were obtained by dyeing the leather with basic dyes after a preliminary prepn of a dark ground The leather is dyed on the surface by this treatment A good brown tint can be produced by auramine or leather brown 50 only Willow bark ext gives a less reddish and less vivid tint than "Corona." Bismarck brown gives a dirty tint
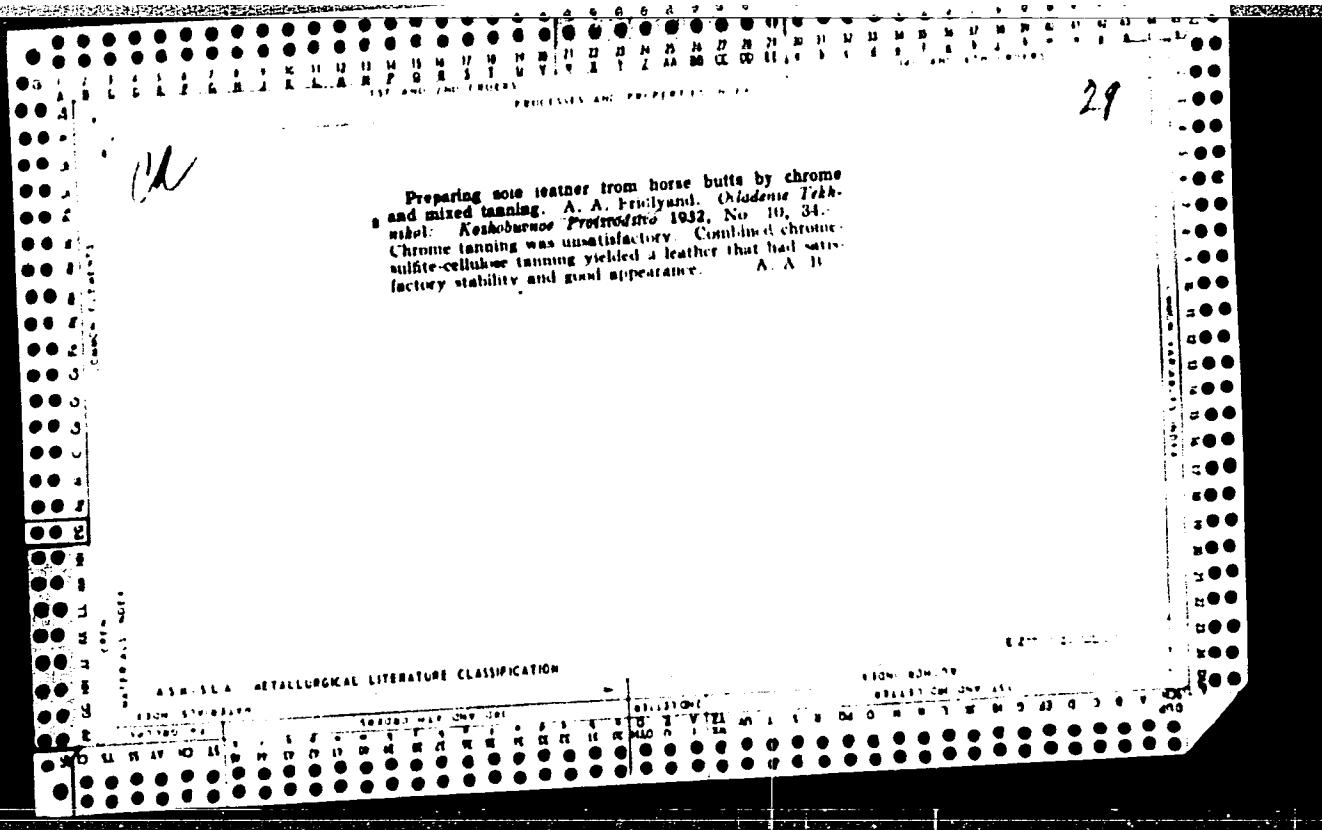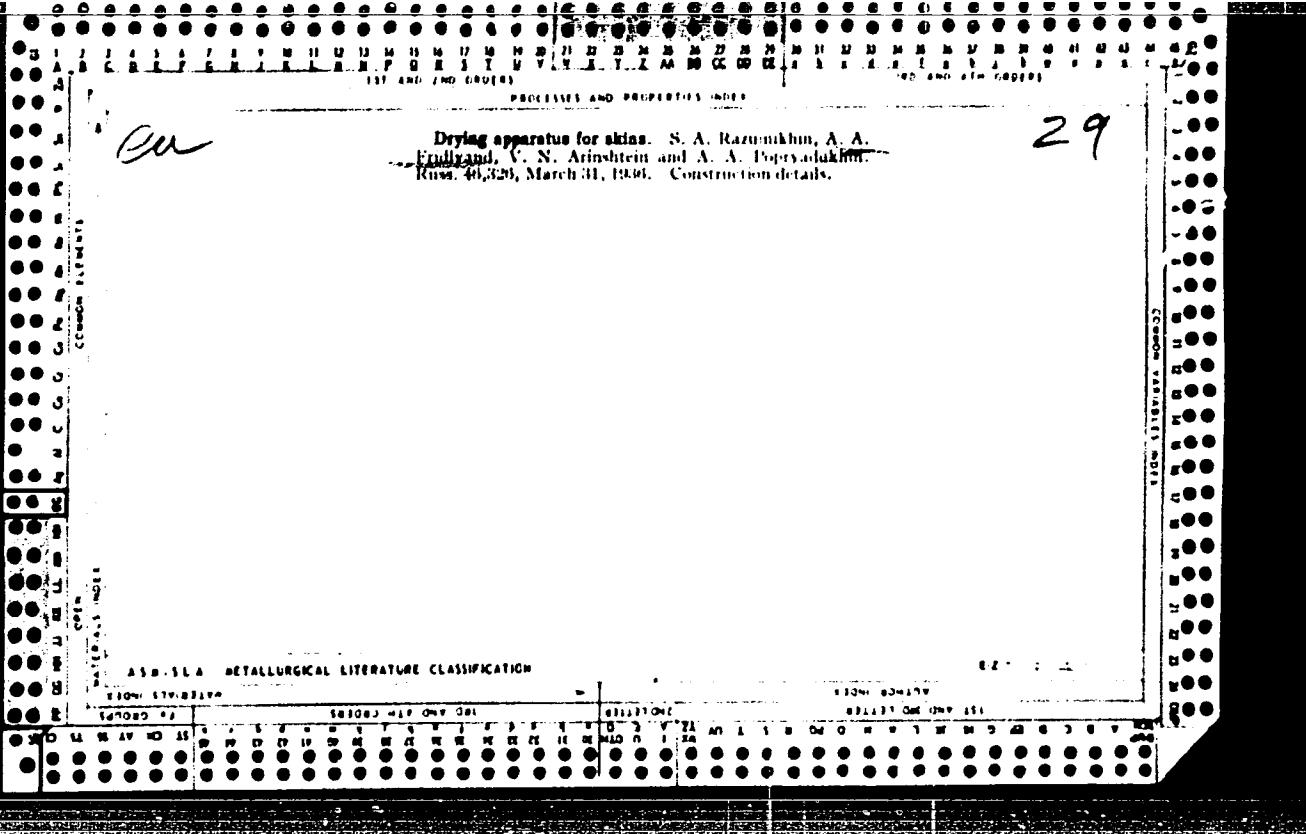ALFRED BURGER

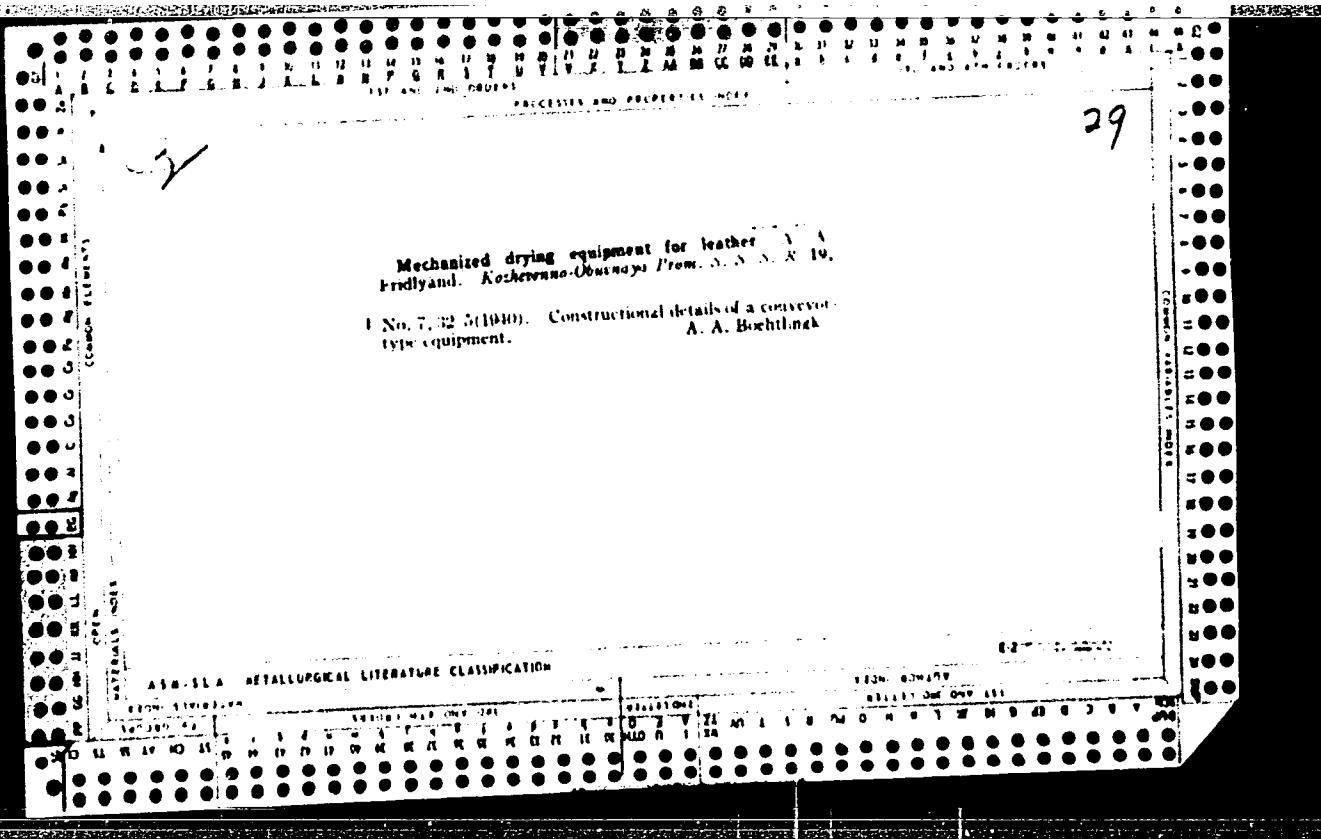ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

FRIDLAND, A.

Influence of disinfection of raw skins by the method of Schattenfroh on the properties of the finished goods. A. KOSTENKO, A. FRIDLAND, A. MURAVYEV AND P. PRIKLONSKII. *Vestnik Kozhevennoi Prom. Torgov.* 1929, No. 5, *Chem. Zentr* 1931, I, 1221 — Raw skins must be protected against anthrax by the method of Schattenfrob in Russia. Such skins soak badly, are able to take up more than the prescribed 5% HCl and cannot be neutralized in the required time. If the skins are neutralized insufficiently the firmness of the leather decreases. Addn. of NaOH or NaS accelerates the soaking process.

A S A - S L A   METALLURGICAL LITERATURE CLASSIFICATION

29

Preparing sole leather from horse butts by chrome and mixed tanning. A. A. Friedland. (Akademie Tekhnibel: Keshoburnoe Proizvodstvo 1932, No 10, 34.- Chrome tanning was unsatisfactory. Combined chrome-sulfite-cellulose tanning yielded a leather that had satisfactory stability and good appearance. A. A. H

METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Drying apparatus for skins. S. A. Razumikhin, A. A. Fridland, C. N. Arinshtein and A. A. Popryadukhin. Russ. 46,520, March 31, 1936.   Construction details.

29

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

29

Mechanized drying equipment for leather
Fridyand. *Kozhevenno-Obuvnaya Prom.* S. S. S. R. 19.

No. 7, 32-5(1940). Constructional details of a conveyor-
type equipment.   A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

Conveyor-type drier for leather.   A. A. Fridlyand.
Kozhevenno-Obuvnaya Prom. S. S. S. R. 19, No. 1, 31-7
(1940).—Construction details.   A. A. Bochtlingk

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

FRIDLYAND, A. A.

28150

Kasatyelbnyye napryazhyeniya V kozhye pri loshyenii. Lyeghaya prom-stv, 1949, No. 5,
S. 28-29

SO: LYTOPIS No. 34

FRIDLYAND, A. A.

"Investigation of the Rolling of Leather for Shoe Sales and Glossing the Box Calf for Shoe Tops." Thesis for degree of Cand. Technical Sci. Sub 28 Mar 50, Moscow Technological Inst of Light Industry imeni L. M. Kaganovich

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1950. From Vechernyaya Moskva, Jan-Dec 1950.

ANISIMOV, A.A.

Gages

Fluid level indicators for overhead drums, Leg.
prom. 12 No. 4, 1952

Monthly List of Russian Accessions, Library of
Congress, July 1952. Unclassified

FRIDLYAND, A.A., kandidat tekhnicheskikh nauk; LANGE, V.I., redaktor;
MEL'NIKOVA, N.V., tekhnicheskiy redaktor

[Leather processing in local tanneries] Vyrabotka kozhi na zavodakh
mestnoi promyshlennosti. Moskva, Gos. izd-vo mestnoi promyshl.
RSFSR, 1953. 295 p.   (MIRA 7:10)
          (Leather industry and trade)

FRIDLYAND, A.A., kandidat tekhnicheskikh nauk; IZAKSON, I.N.

Methods of plating chrome leather. Leg.prom.14 no.3:39-43 Mr '54.
(MLRA 7:5)

1. Glavnyy inzhener Moskovskogo khromovogo kozhevennogo z-da (for
Izakson).   (Leather)

FRIDLYAND, A.A., kandidat tekhnicheskikh nauk; IZAKSON, I.N.

Squeezing-out moisture from chrome leather on roller wringing machines. Leg.prom. 14 no.10:28-30 O '54.   (MLRA 7:11)

1. Glavnyy inzhener Moskovskogo khromovogo zavoda (for Izakson)
        (Leather--Machinery)

ZIKHERMAN, I., inzhener; FRIDLYAND, A., kandidat tekhnicheskikh nauk.

Valuable tanning material made of leather wastes. Prom.koop. no.11:
29-30 N '55.   (MLRA 9:5)
                        (Tanning)

FRIDLYAND,A.A., kandidat tekhnicheskikh nauk

Machine investigation of chrome leather slimming precess. Leg.prom.
15 no.7:39-42 Jl'55.   (MLRA8:10)
(Leather industry)

FRIDLYAND, A.A.

The VShchP bristle-removing machine. Biul.tekh.-ekon.inform. no.10:
56.   (MIRA 11:12)
                        (Tanning)

FRIDLYAND, A.A., kandidat tekhnicheskikh nauk.

Improved use of raw hide thickness. Leg.prom.17 no.3:16-18 Mr '57.
    (Hides and skins)   (MLRA 10:4)

YERSHOVA, Ye., inzhener; FRIDLYAND, A., inzhener; FRIDMAN, S.

Technical publications on progressive practices. Leg.prom. 17
no.6:52-53 Je '57.   (MLRA 10:8)
              (Bibliography--Technology)

FRIDLYAND, A.A., kand. tekhn. nauk.

Improve the utilization of tannides. Leg. prom. 18 no.3:32-33 Mr '58.
(Tanning materials)   (MIRA 11:4)

MASLOV, Iosif Grigor'yevich[deceased]; FRIDLYAND, A.A., kand. tekhn.
nauk, nauchnyy red.; DUKHOVNYY, F.D., red.; TRISHINA, L.A.,
tekhn. red.

[Leather manufacture]Kozhevennoe proizvodstvo. Izd.4., perer.
i dop. Moskva, Rostekhizdat, 1962. 330 p. (MIRA 15:11)
(Leather industry)

FRIDLYAND, A., kand.tekhn.nauk

Processing of pigskins. Mest.prom.i khud.promys. 3 no.2:17-18
F '62.   (MIRA 15:2)

1. Rukovoditel' laboratorii Nauchno-issledovatel'skogo
tekhnokhimicheskogo instituta (NITKhI).
                       (Leather industry)

FRIDLYAND, A.

Leather tanning without vegetable tanning. Mest.prom.i khud.
promys. 3 no.1:28 Ja '62.   (MIRA 15:2)

1. Zaveduyushchiy laboratoriyey Nauchno-issledovatel'skogo tekhno-
khimicheskogo instituta.
                        (Tanning)

FRIDLYAND, Aleksandr Adol'fovich; KUTOVSKIY, M.Ya., inzh.,
retsenzent; DUKHOVNYY, F.N., red.; BATYREVA, G.G.,
tekhn. red.

[Fundamentals of the mechanical technology of leather
manufacture] Osnovy mekhanicheskoi tekhnologii kozhi.
Moskva, Gizlegprom, 1963. 261 p.   (MIRA 16:12)
                    (Leather industry)

FRIDLYAND, A.A.

Types and dimensional series of leather machinery. Kozh.-obuv.prom.
5 no.3:15-17 Mr '63.   (MIRA 16:3)
                        (Leather—Machinery)

FRIDLYAND, A.A.

Improve the quality of lignin sulfates for leather tanning.
Gidroliz. i lesokhim.prom. 17 no.1:30 '64.   (MIRA 17:4)

FRIDLYAND, Aleksandr Adol'fovich; NIKITIN, Georgiy Nikolayevich;
    TIMOKHIN, N.A., retsenzent; RAZUMOVSKAYA, Ye.V., red.

[Additional production from the wastes of leather and
fur manufacture] Dopolnitel'naia produktsiia iz otkhodov
kozhevennogo i mekhovogo proizvodstva. Moskva, Legkaia
industriia, 1965. 211 p.   (MIRA 18:12)

71

AUTHOR: Podlazov, S.S., and Fridlyand, A.B.

TITLE: An Electro-Erosion Machine for Extracting Broken
            Tools. (Elektroerozionnyy stanok dlya izvlecheniya
            slomannogo instrumenta)

PERIODICAL: Stanki i Instrument, 1957, No.1, pp. 25-28.

ABSTRACT: The article describes an electro-erosion machine
            (developed by the OKБ МОСАП at the request of ЭНИМС
            under the name of "Electro-erosion piercing mill,
            model 4611") for extracting broken drills and
            similar tools. Solid trepanning copper electrodes
            are used for tools up to 6 mm in diameter and tubular
            ones for tools over 6 mm in diameter. The size of the
            electrode is about half the size of the tool. The rate
            of advance of a solid electrode is about 1 mm/min for
            an electrode 1.75 mm in diameter and about 0.45 mm for
            one 16 mm in diameter. A tubular 12 mm diameter
            electrode operates at a rate of 2.0 mm/min. Oil or
            water is used as a working medium. The maximum rate
            of metal removal is 200 mm^3/min. The machine is

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71

TITLE: An Electro-Erosion Machine for Extracting Broken Tools.
        (Elektroerozionnyy stanok dlya izvlecheniya slomannogo
        instrumenta)

> The arrangement is a follow-up system responding to the
> electrode gap. The electrode holder is vibrated axially
> by an electromagnetic vibrator. A self-contained fluid
> supply system is included. The text includes 1 photo-
> graph, 1 kinetic diagram, 1 circuit diagram, 2 tables
> and 1 set of specifications.

PRESENTED BY:

SUBMITTED:

AVAILABLE: Library of Congress

Card 3/3

FRIDLYAND, A.G.

FRIDLYAND, A.G.; IOFINOVA, TS.B., red.; GUROVA, O.A., tekhn.red.

[Provisional technical specifications for preparing, repairing
and inspecting traction equipment for streetcars] Vremennye
tekhnicheskie usloviia na izgotovlenie,remont i priemku tiagovogo
pribora tramvainogo vagona. Moskva, Izd-vo M-va kommun.khoz.RSFSR,
1950. 18 p.   (MIRA 10:12)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye tramvayev i
trolleybusov.   2. Starshiy nauchnyy sotrudnik sektora gorodskogo
transporta Akademiy kommunal'nogo khozyaystva im. K.D.Pamfilova.
(for Fridlyand).

(Streetcars)

MERKULOV, Yefim Afanas'yevich; PETROV, Vyacheslav Konstantinovich [deceased];
        SOSYANTS, Vasiliy Georgiyevich; YUDIN, Vasiliy Aleksandrovich;
        Prinimali uchastiye: DUBROVIN, Ye.N.; SLAVUTSKIY, A.K.; BARKOVA,
        Ye.A.; BLATNOV, M.D.; KUDRYAVTSEV, O.K.; SAMOYLOV, D.S.; FRIDLYAND,
        A.G.. BRONSHTEYN, L.A., red.; RACHEVSKAYA, M.I., red.izd-va;
        LELYUKHIN, A.A., tekhn.red.

[Urban transportation and street construction] Gorodskoi transport
i dorozhno-mostovoe khoziaistvo. Moskva, Izd-vo M-va kommun.khoz.
RSFSR, 1959. 473 p.   (MIRA 12:8)

1. Sotrudniki Akademii kommunal'nogo khozyaystva im. K.D.Pamfilova
(for Barkova, Blatnov, Kudryavtsev, Samoylov, Fridlyand).
            (Transportation)   (Streets)

FRIDLYAND,A.M. inzhener

Lowering the cost of mine construction by a correct method
of mine ventilation. Ugol' 30 no.6:17-23 Je '55.
(MIRA 8:8)

1. Stroyupravleniye no.1 tresta Dolinskhakhtostroy.
(Mine ventilation) (Coal mines and mining)

FRIDLYAND, A.M.

KU-2K support setting machine. Shakht. stroi. no.7:24-25 Jl '57.
(MLRA 10:8)

1. Trest Dolinskshakhtostroy, Karaganda.
(Mine timbering)   (Precast concrete construction)
(Pneumatic machinery)

FRIDLYAND, A.M., inzh.

Economic expediency in the construction of sectional reinforced
concrete supports. Shakht. stroi. no.9:9-13 '58.   (MIRA 11:10)

1.Trest Dolinskshakhtostroy.
                    (Mine timbering) (Reinforced construction)

FRIDLYAND, A.M., inzh.

Preventive extensible console supports. Shakht.stroi. 6 no.11: 18-20 N '62. (MIRA 15:12)

1. Trest Dolinskshakhtostroy, Karaganda.
                    (Mine timbering)

FRIDLYAND, A.M., inzh.; DULIN, V.D.; FELONIN, A.N.

Operation of powered units for changing mine cars during
the construction of mines in Karaganda. Shakht. stroi.
7 no.12:21-25 D'63.
(MIRA 17:5)

1. Trest Dolinskshakhtostroy (for Fridlyand).   .
2. Shakhtostroitel'noye upravleniye No.3 tresta Dolinskshakhtostroy
(for Dulin, Felonin).

FRIDLYAND, A.M., inzh.

Investigating the fractured state of rock in a massif surrounding a mine working. Shakht.stroi. 9 no.5:7-10 My '65.

(MIRA 18:6)

1. Tiest Dolinskshakhtostroy.

ACC NR: AT7004468   SOURCE CODE: UR/2834/66/051/001/0105/0110

AUTHORS: Bokiy, Vyach. B.; Mel'nichenko, V. P.; Fridlyand, A. M.

ORG: none

TITLE: Determining ultimate strength of rocks in coal mines

SOURCE: Leningrad, Gornyy institut. Zapiski, v. 51, no. 1, 1966, 105-110

TOPIC TAGS: mining engineering, ultimate strength, coal

ABSTRACT: The possibility and suitability of determining ultimate strength of rocks by a standard hammer (as used for determining strength of concrete) was investigated. This is done by placing a template (with spherical feet) against the sample and striking it with a hammer. The diameter of the impression made in the sample is measured and compared with that in a standard rod. Tests with this technique prove very satisfactory, but only rocks at the surface of a working may be measured. The authors designed a tubular device for measuring rock strength in small drill holes extending as much as 2 m into the rock. The inner diameter of this tube is 25 mm and the length is 2460 mm. A hammer head within the tube is activated by a strong spring and may be released to strike the base plate of a spring-mounted standard rod at the end of the tube. The other end of the standard rod is against a spherical standard hammer, which in turn is against the rock at the end of the hole. The

Card 1/2   UDC: 622.831

ACC NR: AT7004468

blow transmitted by the rod forces the spherical hammer into the rock, forming impres-
sions in the rock and, on the opposite side of the spherical hammer, in the end of the
rod as well. The diameter of this impression may be measured when the device is
removed from the hole, and, since this depression is proportional in size to that
in the rock, the rock strength may be determined. This is usually read directly
from a graph obtained when calibrating the rod. The need for more accurate determi-
nations of ultimate compressive strength is not eliminated, but these techniques
will permit a great amount of information to be gathered quickly, for an entire
mine or even the whole coal field, facilitating mine operation as well as reducing
cost. Orig. art. has: 6 figures, 1 table, and 4 formulas.

SUB CODE: 08/   SUBM DATE: none/   ORIG REF: 003

Card 2/2

FRIDLYAND, A. Sh. and ALEKSANDROV, I. N.

"Perfecting Automatic Frequency Cutoffs by Using a Recloser," Elek.
Sta., 23, No.6, 1952

FRIDLYAND, A. SH.

Electrical Engineering Abst.
Vol. 57 No. 676
Apr. 1954
Electrical Engineering

621.313.322 : 621.316.729

1393.   The application of the self-synchronization of synchronous generators to a power system of medium capacity. I. N. ALEKSANDROV AND A. SH. FRIDLYAND [FRIEDLAND]. Elekt. Stantsii, 1953, No. 9, 16-9. In Russian.

Examples are given of various types of generators from 6 to 15 MW capacity to which the method of self-synchronization has been successfully applied, both when operating in parallel with other generators and in association with power transformers. The special procedure required for a 10 MW, 6·6 kV, 2950 r.p.m., double-wound generator of Ljungström manufacture installed in 1951 is described with oscillograms of current and voltage during self-synchronization. With and without field forcing the current during synchronizing was 2·2 times nominal, persisting for 5 and 20 sec respectively, whilst the voltage on the 110 kV busbars was reduced to 80% nominal for 3 and 17 sec respectively. The authors conclude that this method is very effective in preventing damage in the event of attempts to switch in generators out of synchronism, without any reservation regarding the powers of the already connected and incoming generators. The state of generator insulation is immaterial, but compounding during synchronizing shortens the period of the latter. Finally, it is stated that to avoid spurious operation of relays used for the differential and instantaneous earth fault protection of generators and power transformers, these relays must be supplied from saturated current transformers.   I. MCKERROW

FRIDLYAND, A.SH.

AID P - 2411

Subject   : USSR/Electricity

Card 1/1   Pub. 26 - 10/33

Author   : Fridlyand, A. Sh., Eng.

Title   : Automatic reclosure with control of inverse voltage
               synchronism

Periodical : Elek sta 5, 34-36, My 1955

Abstract   : The author describes an automatic reclosure device which
               he invented and which is simpler to operate than devices
               usually used on 110-kv lines. The operation of this
               device is given in detail and a main connection diagram
               is attached. The feeding of the relays through a high-
               volt capacitor is also explained.

Institution: None

Submitted   : No date

ZHURAVLEV, Boris Alekseyevich; LISITSYN, Sergey Nikolayevich; FRIDLYAND,
    A.Sh., inzh., retsenzent; RYBAKOVA, V.I., inzh., red.; SOKOLOVA,
    T.F., tekhn.red.

[Sheet steel workers handbook] Spravochnik zhestianshchika.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960.
326 p.   (MIRA 13:6)
        (Sheet steel)   (Metalwork)

ZHUKOVA, R.R.; FRIDLYAND, A.Ye., glavnyy vrach; ROL'YE, Z.Yu., professor, konsul'-tant.

Streptomycin and para-aminoslicylic acid therapy of osteoarticular tuberculosis in children. Probl.tub. no.3:85-86 My-Je '53.   (MLRA 6:7)

1. Detskiy kostnotuberkuleznyy sanatoriy "Bakovka" Mosgorzdravotdela.
    (Streptomycin) (Bones--Tuberculosis) (Joints--Tuberculosis)
                                   (Para-aminosalicylic acid)

BESPALOVA, L.L.; FRIDLYAND, A.Ye., glavnyy vrach; HOL'YE, Z.Yu., professor, konsul'tant.

Experience of treating osteoarticular tuberculosis in children with para-aminosalicylic acid. Probl.tub. no.3:87-88 My-Je '53.   (MLRA 6:7)

1. Detskiy kostnotuberkuleznyy sanatoriy "Bakovka" Mosgorzdravotdela.
        (Bones--Tuberculosis) (Joints--Tuberculosis) (Para-aminosalicylic
                                                                    acid)

FRIDLYAND, E. KH. (ENGR)

FRIDLYAND, E. KH. (ENGR) -- "OPERATION OF ROLLER TIGHTENING MECHANISMS." SUB 27 JUN 52, MOSCOW TECHNOLOGICAL INST OF LIGHT INDUSTRY IMENI L. M. KAGANOVICH (DISSERTATION FOR THE DEGREE OF CANDIDATE IN TECHNICAL SCIENCE)

SO: VECHERNAYA MOSKVA, JANUARY-DECEMBER 1952

FRIDLYAND, E.Kh., kand. tekhn. nauk, dotsent

Dressing of surfaces with fabrics. Nauch. trudy MTILP 25:
187-193 '62.   (MIRA 16:8)

1. Kafedra nachertatel'noy geometrii i mashinostroitel'nogo
chercheniya Moskovskogo tekhnologicheskogo instituta legkoy
promyshlennosti.

FRIDLYAND, G. I.

Effect of natural admixtures in cellulose on the dyeing properties of cotton fiber. II. The content of pectic substances in cotton fiber. P. P. Viktorov and G. I. Fridlyand. J. Applied Chem. (U. S. S. R.) 12, 113-23 (1939); cf. C. A. 31, 2855. The methods for the detn. of pectic substances were investigated, and the following is recommended: Boil for 30 min. 4-6 g. of cotton in 100 cc. of water and 50 cc. of 0.1 N HCl under a reflux condenser. Filter. Boil again with 3 cc. of 10% NH₄ citrate and 150 cc. of water for 1 hr. Filter. Repeat the process. Neutralize the HCl ext. with 4% NaOH. Combine all filtrates and dil. to 1250-1500 cc. To two 500-cc. samples add 10 cc. of 4% NaOH and let stand overnight. Add 10 cc. 10 N AcOH and 25 cc. 44.4% CaCl₂ soln. and allow to stand for 1 hr. Filter, wash with 50 cc. of 0.5% CaCl₂ and then with water until free from chloride. Wash 3-4 times with hot water, and dry at 100-5° to const. wt. Less mature cotton is higher in pectic substances and American cotton contains less pectic substance than Egyptian cotton of the same maturity. The best American cotton contains 0.08% of pectic substances. The extractive substances contg. no N contained about 50% of pectic substances. 28 references. **III. Removal of pectic substances from cotton by fermenting and the effect of this treatment on the adsorptive properties of fiber.** P. P. Viktorov and V. R. Ivanova. Ibid. 231-61 (in French), 261). Taka diastase, "Pectinol" (German patented prepn.), Penicillium niger, Penicillium purpd. by the biochem. lab. of the Research Inst. of Primary Treatment of the Novolubyanskii Cultures (U. S. S. R.) and cultures of Bacillus macerans and B. felsineus were used for fermenting and removal of the pectic substances from cotton fibers. Removal of pectic substances was most rapid and complete with B. felsineus; next best was B. macerans. The other organisms had very slight action. The fermentation had no chem. effect on the cellulose. The fibers freed from pectic substances by fermentation adsorbed the same amts. of dye as those treated by the standard chem. method. Fats and wax-like substances not removed by the fermentation had no effect on the capillary properties of fiber; N-contg. substances had a slight effect. A decrease of albumin and ash of the cellulose was caused by their soln. in the liquid of the ferment solns., but was not caused by the direct action of the ferments. Seventeen references. **IV. The effect of removal of nitrogen-containing substances of cotton on its adsorptive properties.** P. P. Viktorov and N. M. Sokolova. Ibid. 440-50 (in French, 450). The treatment of cotton fibers with trypsin and pepsin in neutral and weakly alk. solns. decreased the N content by 40-50%. A weakly alk. soln. itself decreased the N content somewhat. EtOH decreased the N content by 50%, but CaH₄ had no effect. Treatment of fibers with EtOH and then with trypsin at the best gave the same results as trypsin alone. The adsorptive properties of fibers treated with the enzymes increased somewhat, but this cannot be entirely related to the decrease of N in the fiber. The removal of albumins had only a secondary effect on the capillary properties of the fibers. Eighteen references.

A. A. Balgovov

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GORDON, Nikolay Borisovich; BORISOV, Nikolay Alekseyevich; FRIDLYAND, G.I., retsenzent; ARKHANGEL'SKIY, S.S., redaktor; MEDVEDEV, L.Ya., tekhni- cheskiy redaktor

[Finishing linen fabric] Otdelka l'nianykh tkanei. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva legkoi promyshl. SSSR, 1956. 364 p.   (MLRA 10:3)
          (Linen) ·(Textile finishing)

LAZAREVA, S.Ye.; KOROLEVA, N.D.; KIRILLOV, L.N.; FRIDLYAND, G.I.;
SHAPIRO, L.M.; LEBEDEV, K.A.; PEKH, Yu.Yu.; MEKLER, B.A.

Spinning of chemically treated (boiled and bleached) roving.
Tekst. prom. 19 no.7:42-45 Jl '59.   (MIRA 12:11)
(Textile finishing)

FRIDLYAND, G.I., starshiy nauchnyy sotrudnik; SHAPIRO, L.M., mladshiy
          nauchnyy sotrudnik

Oxidation boiling of flax yarn. Nauch.issl.trudy TSNIILV 12:
141-159 '59.   (MIRA 15:8)
                    (Yarn) (Bleaching)

KUDRYAVTSEV, P.I., kand.filosof.nauk, red.; TOKAREVICH, K.N., prof.,
red.; FRIDLYAND, G.I., prof., red.

[The 21st Congress of the Communist Party of the Soviet Union
and tasks in the development of Soviet medicine] XXI s"ezd
KPSS i zadachi razvitiia sovetskoi meditsiny. Leningrad, 1960.
105 p. (Leningradskii gos.ordena Lenina in-t usovershenstvovaniia
vrachei, vyp.23)   (MIRA 14:2)

1. Leningrad. Gosudarstvennyy institut usovershenstvovaniya
vrachey.
                    (MEDICINE)

FRIDLYAND, G.I., kand. tekhn. nauk; ROZOVA, Z.S., kand. tekhn. nauk;
SEMENOVA, T.F., mladshiy nauchnyy sotrudnik

Method for determining the activity of tanning extracts. Nauch.-
issl. trudy TSNIILV 16:126-138 '62.   (MIRA 16:10)

FRIDLYAND, I. B.

"Amino and Polypeptide Nitrogen in Blood and Their Distribution Between Erythrocytes and Plasma in Guinea Pigs Affected With Experimental Scurvy, Fiziologicheskii Zhurnal S.S.S.R., 1939, Vol 27, pp 244-247.

Chair of Biological Chemistry, I. V. Stalin Second Moscow State Medical Institute, Anaerobe Division, Tarasevich Central State Scientific Control Institute.

FRIDLYAND, I. [B]

"The Content of Amino and Polypeptide Nitrogen in Certain Organs of Guinea Pigs Affected With Scurvy, Fiziologicheskii Zhurnal S.S.S.R., 1939, Vol 27, pp 248-251.

Chair of Biological Chemistry, I. V. Stalin Second Moscow State Medical Institute, Anaerobe Division, Tarasevich Central State Scientific Control Institute.